



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,216	01/31/2002	E. Lewis Barton	10011355-1	4832

7590 08/19/2003

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

TRAN, HUAN HUU

ART UNIT	PAPER NUMBER
----------	--------------

2861

DATE MAILED: 08/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,216

Applicant(s)

BARTON ET AL.

Examiner

Huan H. Tran

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 7-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-25 is/are allowed.
- 6) ☒ Claim(s) 1,2,7-13 and 17-20, 26 is/are rejected.
- 7) ☒ Claim(s) 14-16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Art Unit: 2861

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 8, 11 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Osborne et al (US Patent No. 5614930) cited in the IDS dated 01/31/02).

With respect to claim 8, Osborne et al. discloses a spittoon (70) for servicing a printhead, comprising :

a bottom (73);

one or more walls (78, 74), each wall having a top edge, the walls in combination with the bottom defining a waste ink reservoir having a capacity; and

an inwardly extending lip (See Fig. 3, element 88) at the top edge of at least one wall configured to retain a volume of waste ink when the spittoon is tilted toward the lip.

With respect to claim 11, Osborne et al. shows that the lip (88) extends inwardly around an upper perimeter of the spittoon and defines a spittoon entrance.

Art Unit: 2861

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 9 and 26, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osborne et al (US Patent NO. 5614930) in view of Niimura et al (US Patent No. 6203137).

With respect to claims 9 and 26, Osborne et al discloses everything (see the rejection of claim 8 above) except the limitation that the spittoon further comprises a precipitating agent within the reservoir; wherein the precipitating agent is a salt of a multivalent cation or a multivalent organic acid, the precipitating agent being impregnated in an absorbent pad within the reservoir (claim 9).

Niimura et al discloses an ink spittoon comprising an absorbent pad impregnated with a salt of a multivalent cation (Col. 5, lines 15-24 and 42-45).

Therefore it would have been obvious to one of ordinary skill in the art to modify the teaching of Osborne et al with that of Niimura et al so as to prevent any residual liquid formed in the waste ink reservoir in Osborne et al. from leaking.

With respect to claim 10, Osborne et al. modified by Niimura et al. discloses the claimed invention except for the specified material of the precipitating agent. It would have been obvious to one having ordinary skill in the art at the time the invention was made to select a suitable material for use as a precipitating agent depending on the ink formulation, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. See MPEP 2144.07.

5. Claims 1, 2, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niimura et al (US Patent No. 6203137 or EP 841175).

Art Unit: 2861

Niimura et al. discloses a spittoon for servicing a printhead, the spittoon comprising:

- a reservoir for a waste ink; and
- a precipitating agent incorporated in an absorbent pad within the reservoir, wherein the precipitating agent is a salt of a multivalent cation that is selected to react with a component of the waste ink to form a precipitate.

Thus, Niimura et al. discloses the claimed invention except for the specific material for use as the precipitating agent. It would have been obvious to one having ordinary skill in the art at the time the invention was made to select -depending on the ink formulation - suitable material for use as precipitating agent, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. See MPEP 2144.07.

6. Claims 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osborne et al. as applied to claim 8 above, and further in view of Taylor et al. (US Patent No. 5742303).

Osborne et al. discloses everything except that it does not show that the lid (88) is retractable.

Taylor et al. discloses a spittoon with a retractable lid where the lid is enclosed within the spittoon when retracted (element 142 in Fig. 6).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made as mere design modification to replace the lid 88 in Osborne et al. with a retractable lid as taught by Taylor et al. to close the entrance of the spittoon.

7. Claims 17, 18, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osborne et al. in view of Niimura et al.

Osborne et al. discloses an inkjet printer comprising a printhead (30, 32) and a printhead service station (50) including a spittoon (70) with a bottom (73) and one or more walls (74, 78), each wall having a top edge, the walls in combination with the bottom defining a waste ink reservoir (75), a

Art Unit: 2861

lip (88) that extends inwardly from at least one wall configured to retain a volume of waste ink when the spittoon is tilted toward the lip.

Osborne teaches a service station includes one or more pen caps (64, 65) and one or more pen wipers (66, 68).

Osborne et al. does not teach an absorbent pad with the spittoon reservoir and a precipitating agent incorporated in the absorbent pad, wherein the precipitating agent is selected to react with a component of the waste ink to form a precipitate.

Niimura et al. discloses the missing feature .

Therefore it would have been obvious to one of ordinary skill in the art to combine the teaching of Niimura et al. into that of Osborne et al. to absorb waste ink.

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Osborne et al. in view of Niimura et al. as applied to claim 17 above, and further in view of Taylor et al.

Osborne et al. modified by Niimura et al. discloses the claimed invention except for the limitation of a retractable lid that is enclosed within the spittoon when retracted, where the lid is configured to be opened and closed automatically by the printer.

Taylor et al. discloses such retractable lid.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the retractable lid taught by Taylor et al. into the teaching of Osborne et al. as modified by Niimura et al. to provide an automatically openable/closeable lid.

Art Unit: 2861

Allowable Subject Matter

9. Claims 14, 15, 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claim 14, prior art of record do not teach or suggest a spittoon with a retractable lid where, when the lid is retracted, the lid is enclosed in a portion of the spittoon that is distinct from the waste ink reservoir (see Fig. 7 of the present invention).

With respect to claims 15, 16 and 21, prior art of record do not teach the limitation "where the reservoir is configured such that when the spittoon is tilted toward the lip at an angle up to ninety degrees, the lip retains a volume of waste ink equal to approximately one-quarter of the capacity of the waste ink reservoir" (claim 15) or the limitation "where the reservoir is configured such that when the spittoon is tilted toward the lip at an angle up to forty-five degrees, the lip retains a volume of waste ink equal to approximately one-half of the capacity of the waste ink reservoir" (claim 16). First, it should be noted that in the context to be assessed the Office does not have the means to make the necessary measurement. Secondly, it is noted that according to Osborne et al. any liquid spit from the pens is absorbed by the diaper 91 (Col. 8, lines 38-47). It should be noted that in this respect any liquid waste ink in the present invention would also coagulated by reaction with the precipitating agent. Nevertheless, argument made on page 12, second paragraph of the Amendment dated 05/22/03 that the references fail to provide one of ordinary skill in the art an incentive to design the lip 88 of the spittoon of Osborne et al. with the capability of retaining a specified volume of waste ink is persuasive.

10. Claims 21, 22-25 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: With respect to claim 21, prior art of record do not teach or suggest the "means for retaining said previously spit ink within said spittoon during tilting of said printing mechanism at an angle of up to 45 degrees". First, it should be noted that in the context to be assessed the Office does not have the means to make the necessary measurement. Secondly, it is noted that according to Osborne et al. any liquid spit from the pens is absorbed by the diaper 91 (Col. 8, lines 38-47). It should be noted that in this respect any liquid waste ink in the present invention would also coagulated by reaction with the precipitating agent. Nevertheless, argument made on page 12, second paragraph of the Amendment dated 05/22/03 that the references fail to provide one of ordinary skill in the art an incentive to design the lip 88 of the spittoon of Osborne et al. with the capability of retaining a specified volume of waste ink if the spittoon was to filled with liquid waste ink is persuasive.

Art Unit: 2861

Claim 22 and dependent claims thereof are allowable for the same reason.

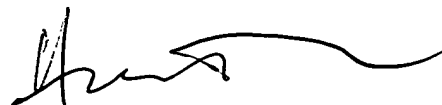
Response to Arguments

11. Applicant's arguments with respect to claim 8 have been considered but are moot in view of the new ground(s) of rejection. The new ground of rejection is due to the amendment made to the claim which removed the limitation concerning the precipitating agent.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan H. Tran whose telephone number is (703) 308-0749. The examiner can normally be reached on M-F with Monday off, from 7:30am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Fuller can be reached on (703) 308-0079. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703)872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1749.



Huan H. Tran
Primary Examiner
Art Unit 2861

hht
August 10, 2003